

Claims

1. A hand-held power tool, in particular a power drill or screwdriver, having a chuck
5 (14) for a tool, having a drive spindle (13) which drives the chuck (14) and protrudes with
a spindle head (131) into a recess (15) embodied in the chuck (14), and having
connecting means, operative between the spindle head (131) and the recess (15), for
connecting the drive spindle (13) and the chuck (14) in a manner fixed against relative
10 rotation, characterized in that the connecting means have axially extending cutting edges
(16), embodied on the spindle head (131), that cut into the wall of the recess (15) when
the chuck (14) is being slipped onto the spindle head (131).

2. The hand-held power tool as defined by claim 1, characterized in that the recess
(15) in the chuck (14) is embodied with a stepped diameter and has an inner portion
15 (151) with an inside diameter that is smaller than that of the adjacent outer portion (152);
and that the cutting edges (16) are located on a portion of the spindle head that is set
back from the free end of the spindle head (131), and on the free end of the spindle head
(131), a guide portion (131a) preceding said portion of the spindle head is embodied,
whose outside diameter, for guiding the chuck (14), is adapted to the inside diameter of
20 the inner portion (151) of the recess (15).

3. The hand-held power tool as defined by claim 2, characterized in that the inside
diameter of the outer portion 162 of the recess (15) in the chuck (15), so that the cutting
edges (16) on the spindle head (131) can cut into the chuck (14), is smaller than the
25 outside diameter of the cutting edges (16).

4. The hand-held power tool as defined by one of claims 1 through 3, characterized
in that the spindle head (131) with the cutting edges (16) is hardened, or is of harder
material than the chuck (14).

30 5. The hand-held power tool as defined by one of claims 1 through 4, characterized
in that the recess (15) and spindle head (131) are embodied cylindrically, and the cutting
edges (16) are formed by a notched toothing (17) encircling the spindle head (131).

6. The hand-held power tool as defined by one of claims 2 through 4, characterized in that the recess (15) is embodied cylindrically and the spindle head (131), at least in the region of the portion of the spindle head that has the cutting edges (16), is embodied as a polygonal prism; and that the cutting edges (16) are formed by the corner edges (181) of the polygonal prism.

7. The hand-held power tool as defined by claim 6, characterized in that the polygonal prism is a regular hexagonal prism (16), whose diagonal corner measurement (e) is greater than the inside diameter of the outer portion (152) of the recess (15).

8. The hand-held power tool as defined by one of claims 1 through 7, characterized in that in the spindle head (131), there is a coaxial threaded bore (19), terminating in the free face end of the spindle head, into which bore an assembly and securing screw (20) axially braced in the chuck (14) can be screwed.

9. The hand-held power tool as defined by claim 8, characterized in that the assembly and securing screw (20) has a screw head (21) and a screw shank (22) that has a male thread (23); and that a female-threaded portion (25) is located in the chuck (14), in the region where the assembly and securing screw (20) is introduced, and its inside diameter is greater than the outside diameter of the screw shank (22) of the assembly and securing screw (20).

10. The hand-held power tool as defined by claim 9, characterized in that in the chuck (14), a stepped bore (24), has having one smaller-diameter bore portion (242), terminating coaxially in the recess (15), whose bore diameter is greater than the outside diameter of the screw shank (22), and one larger-diameter bore portion (241), whose bore diameter is greater than the outside diameter of the screw head (21) of the assembly and securing screw (20).

11. The hand-held power tool as defined by claim 10, characterized in that the female-threaded portion (25) is located in the smaller-diameter bore portion (242) of the stepped bore (24).

12. The hand-held power tool as defined by one of claims 9 through 11,

characterized in that a disassembly screw is provided, which has a dd with a male thread that can be screwed into the female-threaded portion (25) and which is capable of being braced on the spindle head (131), for instance on the face end of the spindle head (131) facing toward the stepped bore (24), or on the bottom (191) of the threaded bore (19),
5 embodied as a blind bore, in the spindle head (131), or on a chamfer (191) surrounding the bore opening of the threaded bore (19).